



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Agency for Toxic Substances
and Disease Registry

US EPA RECORDS CENTER REGION 5



431079

Memorandum

Date May 19, 1992

From Environmental Health Scientist, TSS, ERCB, DHAC, ATSDR (E-32)

Subject Health Consultation: Saw Wee Kee Park (5#IL)
Kendall County, Oswego, Illinois

To Louise Fabinski
ATSDR Senior Regional Representative
U.S. EPA Region V
Through: Director, DHAC, ATSDR (E-32) *[Signature]*
Chief, ERCB, DHAC (E-32) *[Signature]*
Chief, TSS, ERCB (E-32) *[Signature]*

Background and Statement of Issues

Members of the public residing in the area of the Saw Wee Kee Park have requested the Agency for Toxic Substances and Disease Registry (ATSDR) to review data and information and to determine if conditions at the park pose a threat to public health [1]. Additional data and information have been supplied to ATSDR by the Illinois Environmental Protection Agency (IEPA), the Illinois Department of Health (IDOH), and the Region V, U.S. Environmental Protection Agency (EPA) [2-4]. The Senior ATSDR Regional Representative has visited the site and met with concerned community members (March 20th and April 17th, 1992) [5].

The Saw Wee Kee Park occupies an approximate 160-acre area located a few miles west-southwest of Oswego, Illinois. Up until the late 1930s, the property was used for a strip-mine gravel pit operation. Reportedly, mining excavation activities occurred at and below the groundwater table. Since the cessation of mining, the property has been the site of dumping activities which have been reported as recently as 1991 [2]. Industrial and construction debris and waste have been documented as being disposed of at this site. Some removal or cleanup activities have occurred; surface drums and some construction debris have been removed from the park [2].

Information reviewed indicates that numerous physical hazards are located on-site including empty drums, empty fungicide containers, telephone poles, broken glass, old farming equipment, medical debris (empty syringes, partially empty medical bottles), wire bales, and portions of partially buried 55-gallon drums are visible in areas of mounded dirt, gravel, and riprap [1,2,3].

Several private residences are located adjacent to northwest boundary of this property. The area depends upon groundwater for

potable water. Fox River, used for recreational purposes, is adjacent to the northern edge of the park. Area groundwater flow is anticipated to be to the northwest, towards the river [3].

The park is currently owned by the Oswego Park District. The property is used as an area public park, with hiking trails, a campground, and bridal paths for horseback riding. Future plans for the property include further development of the park for recreational activities. The area surrounding the Saw Wee Kee property is a rapidly developing residential area. Public use of the park is expected to increase dramatically as the residential areas develop [3].

In April 1991, the Region V EPA conducted a site history investigation and sampled a surface water leachate seep and eight residential wells [2]. In April 1992, the EPA conducted a preliminary geophysical investigation comprised of an electromagnetic survey to determine the presence of buried metal material [4]. The IEPA recently sampled one of 55-gallon drums that was found buried under a few inches of material in a mound near the former boy scout camping area [3]. Results of the surface water and private well samples did not reveal contaminants at levels of human health concern [2]. Results of the electromagnetic survey indicate several areas on the park property that contain buried metal [4]. Without further investigation, it cannot be determined if any or all of the buried metal represents buried drums. Preliminary results of the one drum sample indicate that the liquid in the drum has a flash point of 95° F. Further analytical results (organic compounds) of the drum sample are not yet available [3].

The EPA is planning to resample selected residential private wells thought to be downgradient (northwest) from the site. The IEPA is planning to perform a limited excavation and sampling activity in areas suspected to contain buried drums [3].

Discussion

The drums, broken glass, empty fungicide containers, and other items identified as physical hazards are located in areas accessible to persons frequenting the park. Children, especially, are prone to injuries as they tend to seek out and play on and around such things as mounds of dirt, empty drums, and wire bales. If hazardous substances are intermixed with these physical hazards (drums and containers with residual products), exposures to chemical contaminants can occur. Human contact with syringes can cause puncture wounds and possible

infections, and the contents of medical bottles may pose a health threat--particularly to young children.

The preliminary geophysical survey indicates several areas on the park that contain buried metal. Until further investigation, it cannot be determined if any of the metal constitutes buried drums. One buried drum that was located and sampled was found to contain a flammable liquid. If other buried drums containing hazardous or flammable materials are present and are located in recreational and camping areas, the possibility exists that humans may be exposed to hazardous substances via direct dermal contact, inhalation, and possibly ingestion. The possibility of a fire and/or an explosion also exists.

Finally, human exposures to materials that may be buried on the park property may occur via ingestion of contaminated groundwater. Although contaminants of human health concern were not detected in the April 1991 private well sampling event, the possibility of groundwater contamination and subsequent human exposure cannot be ruled out until a more comprehensive characterization of environmental contamination at the park is completed. As the park and area surrounding the park continue to develop, the likelihood of additional private wells (both at the park and at private residences) increases the likelihood of this exposure pathway being completed.

Conclusions

Based on the Saw Wee Kee Park information reviewed, the ATSDR concludes that:

1. physical hazards, medical debris, and flammable substances located on-site pose a threat to members of the public who may access these areas;
2. pending further characterization of the site, a potential public health threat may exist via human exposure to hazardous substances that may be present;
3. a potential threat to health may be present or may occur in the future via private well contamination if groundwater is affected by past dumping operations;
4. additional environmental and material sampling data are needed to better determine the type and magnitude of threats to human health that may be posed by the site.

Recommendations

ATSDR recommends that:

1. public access should be restricted from areas of the park that contain physical hazards, medical debris, and potentially buried hazardous substances;
2. the type and extent of contamination in the park should be better characterized (e.g., drum contents, soil contamination, groundwater contamination, surface water contamination) to assist in determining the potential current and future human exposure pathways;
3. downgradient private wells should be resampled to ensure its fitness for human consumption; and
4. any on-site operations involving excavation, construction, etc., in areas suspected to contain buried material that may be hazardous should only be performed by personnel certified to work with hazardous substances as per the Occupational Safety and Health Administration (OSHA) regulations.

If further clarification is necessary or if additional information becomes available for review, please do not hesitate to contact this office at (404) 639-0616.



Lynn C. Wilder

References

1. ATSDR Memorandum: Saw Wee Kee Park, Kendall County, Illinois. From L. Fabinski (Sr. Regional Representative), to A. Susten (Chief, TSS, ERCB, DHAC). May 5, 1992.
2. Personal Communication with Sr. Regional Representative (L. Fabinski). May 12, 1992.
3. Ecology and Environment, Inc., Letter Report for Saw Wee Kee Nature Preserve, Oswego, IL. TDD: T05-9104-027. June 27, 1991.
4. Conference Call--ATSDR (L. Fabinski, L. Wilder, L. Ogden-Askew), Region V EPA (B. Benning, J. Ursic), IEPA (M. Retzlaff), and IDOH (T. Baughman). 5/12/92.

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5. Region V EPA Memorandum: Saw Wee Kee Geophysical Investigation. From J. Ursic (Technical Support Section), to L. Fabinski (ATSDR Sr. Regional Representative). April 23, 1992.